

## **REMARKS**

### Executed Combined Declaration and Power of Attorney

Enclosed is a new Combined Declaration and Power of Attorney executed by inventor Georgios Sabatakos with his initials and the date for the correction that he made.

### Status of the Claims

Claims 1-18, 23, 24, and 31-47 are currently pending in the present application. Claims 19-22 and 25-30 have been cancelled. Claims 1-18 are withdrawn from consideration as being directed to nonelected inventions. New claims 45-47, directed to the same invention as claims 23, 24, and 31-44, have been added to supply separate specific embodiments of the claimed invention. Thus claims 23, 24, and 31-47 directed to a method of identifying genes which are modulated by  $\Delta$ FosB are currently under examination.

### Amendments to the Claims

Claims 34 and 35 have been amended to clarify the specific embodiments of the claimed invention. Claim 38 has been amended to change the dependency of the claim and to remove the inadvertently inserted semicolon before the period. The amendments to the claims do not introduce prohibited new matter. Support for the amendment can be found in claims 34, 35, and 38, as originally submitted.

New claims 45-47 do not introduce prohibited new matter. Support for the new claims can be found in 23, 34, and 35 as originally submitted.

### Objection to Claim 38

Claim 38 has been amended to remove the semicolon, which was inadvertently inserted before the period. Applicants respectfully request withdrawal of the objection.

### Rejection Under 35 U.S.C. § 112, First Paragraph

Claim 33 has been rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification.

The Office Action asserts that the cell lines recited in claim 33 must be obtainable by a repeatable method set forth in the specification or otherwise be readily available to the public. The cell lines recited in claim 33 are readily available to the public. As shown by the attached pages from the ATCC catalog, all of the cell lines except Ros 17/2.8 can be ordered from ATCC. A preliminary search in Pub Med indicates that Ros 17/2.8 is referenced in at least 583 references. It is a well known routinely used cell line that is available to the public.

Applicants respectfully request withdrawal of the rejection.

Rejection Under 35 U.S.C. § 112, Second Paragraph

Claims 34, 35, 38, 40, and 42 have been amended as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 34 and 35 have been amended as further comprising obtaining a cell lysate (claim 34) or nuclear extract (claim 35) for determining differential gene expression induced by  $\Delta$ FosB. Thus, claims 34 and 35 further limit claim 23. New claim 45 is directed to a method of identifying genes. New claims 46 and 47 are dependent from claim 45 and are directed to method of identifying genes that are modulated by  $\Delta$ FosB using cell lysates or nuclear extracts. Applicants respectfully point out that determining which genes are differentially expressed can be performed with cell lysates and nuclear extracts. Cell lysates and nuclear extracts are routinely used for transcription assays. Changes in the levels of gene expression can be determined by any hybridization assay including microarrays and Northern blot analysis, as well as Western blot analysis, immunoassay, PCR, *etc.*

Claim 38 has been amended to depend from claim 23. Thus the claim is definite for reciting “the cell is in an animal.”

The term “high throughput format” in claim 40 is well known in the art and is described on pages 19 and 20 of the specification. High throughput assays are routinely performed by one of ordinary skill in the art. Accordingly, the recitation of “high throughput format” in claim 40 is not vague and incomplete.

Claim 42 further limits claim 23 because isolating RNA from the cell is not the only method for identifying genes that are differentially expressed. Differential gene expression also

could be determined by isolating proteins, producing cDNAs and using antibodies to detect proteins. Isolating RNA from the cell is a specifically recited step in one embodiment for determining differential expression of genes. Thus, claim 42 further limits claim 23 and is not confusing.

#### Rejections Under 35 U.S.C. § 102

A. Claims 23, 24, 31, 32, 36-39, and 41-44 are rejected under 35 U.S.C. § 102(b) as being anticipated by Nestler *et al.*

The claims are directed to a method of identifying genes that are modulated by  $\Delta$ FosB, comprising inducing the expression of  $\Delta$ FosB in a cell and determining which genes are differentially expressed, thereby identifying genes that are modulated by  $\Delta$ FosB. Nestler *et al.* do not teach a method of identifying genes that are modulated by  $\Delta$ FosB comprising inducing  $\Delta$ FosB in cells and determining which genes are differentially expressed. Figure 4, referenced by the Office Action, discloses the expression of  $\Delta$ FosB and not the expression of the genes that are induced or modulated by  $\Delta$ FosB. The end of section 5 on page 16 of Nestler *et al.* referenced by the Office Action, generally discusses the plans for using the mice. It does not disclose the claimed method of identifying genes that are modulated by  $\Delta$ FosB comprising inducing the expression of  $\Delta$ FosB and determining which genes are differentially expressed. Thus, Nestler *et al.* do not anticipate the claimed invention.

B. Claims 23, 31, 32, and 37-40 are rejected under 35 U.S.C. § 102(b) as being anticipated by Agamemnon *et al.*

As discussed above, the claims are directed to a method of identifying genes that are modulated by  $\Delta$ FosB. Agamemnon *et al.* disclose c-Fos expression during embryonic development and in primary and clonal cell lines and the expression of c-Fos related genes in primary and clonal cell lines. However, Agamemnon *et al.* do not disclose a method of identifying genes that are modulated by  $\Delta$ FosB. In fact, c-Fos disclosed by the Agamemnon *et al.* and  $\Delta$ FosB recited in the claims are not the same product. The gene encoding  $\Delta$ FosB is an alternatively spliced variant of the FosB gene which is a different gene from c-


Fos, disclosed by Agamemnon *et al.* Accordingly, Agamemnon *et al.* do not anticipate the claimed invention.

If there are any additional fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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